

REMARKS/ARGUMENTS

Entry of this amendment and reconsideration of the present application, as amended, are respectfully requested.

Claims 1-24 are pending in this application. Claims 1-5, 7-21, 23 and 24 are rejected and claims 6 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 18-21 are amended for clarification purposes and the changes to the claims do not relate to patentability or raise new issues.

Claims 1-5, 7-21, 23 and 24 are rejected under 35 U.S.C. §102(b) as being anticipated by Cooper et al (U.S. Pat. No. 6,199,902). In response to the applicant's arguments in the previous Amendment, the Examiner takes a position that the '139 patent (U.S. Pat. No. 6,039,139) does not support the subject matter of independent claims 1, 15, 23 and 24 because "the Examiner has seen no inherency that the ultrasonic waves could positively perform or disclose" the subject matter of the claims.

It is respectfully submitted that the '139 patent discloses electromagnetic transducers (at col. 22, lines 2-4) in addition to ultrasonic transducers for transmitting and receiving waves. Moreover, the '139 patent mentions the possibility of using several discrete frequencies or a band of frequencies to obtain greater information from the reflected waves (see col. 22, line 61 to col. 23, line 7). Thus, the '139 clearly discloses the use of electromagnetic frequencies in addition to or instead of ultrasonic frequencies for occupant monitoring.

A difference between ultrasonic and electromagnetic wave sensors is the frequency at which such sensors operate, i.e., the frequency of the waves or energy signal being transmitted into the vehicle compartment to potentially impact the occupant therein. The frequency of the energy signal affects the absorbability of the waves by objects such as human beings in the vehicle compartment.

When waves having a relatively high electromagnetic frequency impact the human body, the human body reflects a significant portion of the waves so that absorption of the waves is minimal or even nominal. However, as the frequency drops, more of the energy embodied by the waves passes through the human body and thus the absorption of the wave energy is increased (while the reflected portion of wave energy decreases). Thus, there is a direct correlation between the frequency of transmitted waves and reflectivity/absorbability of the waves by objects such as human beings. The higher reflectivity of waves equates to a lower absorption of the waves and vice versa.

In view of the relationship between reflectivity of waves and absorbability of the waves, whenever mention is made of the reflectivity of waves being detected and possibly subsequently

quantified and analyzed to obtain information about the objects from which the waves have been reflected, it is inherent that a detection of whether absorption of the waves has occurred (as set forth in claims 1, 15, 23 and 24) is also being considered.

A detection of whether absorption of the waves has occurred is a feature which flows as a matter of course from a detection of the reflected waves regardless of the frequency of the waves. For example, once waves are transmitted, if no reflected waves are detected, then it is clear that there is an object in the path of the transmitted waves (in the vehicle compartment) and that all of the transmitted waves have been absorbed by whatever object is in the path of the transmitted waves. Similarly, if the reflected waves have the same properties as the transmitted waves, it is likely that the waves did not encounter any object in their path which would absorb even a small part of the waves, i.e., no object is present in the vehicle compartment. Accordingly, a detection of whether absorption of a transmitted energy signal has occurred is equivalent to a detection of a reflected energy signal, and analysis thereof.

The feature of detecting and analyzing reflected waves is amply disclosed in the '139 patent. Indeed, in the '139 patent, repeated disclosure is made of waves reflected by an occupant in a compartment of a vehicle being analyzed to obtain information about the occupant. In light of the analysis above relating to the relationship between reflectivity of waves and absorbability of waves, the absorption of waves by the occupant is also being analyzed in the sense that such absorption is detected (as reflected in the degree to which waves are reflected by the occupant) and an absorption signal indicative thereof is provided (a signal indicative of the reflectivity of the waves is also indicative of the absorbability of the waves).

In view of the foregoing, it is respectfully submitted that the subject matter of the pending claims is adequately disclosed the application which matured into the '139 patent, which has a filing date before that of Cooper. As such, Cooper should not be available as prior art and accordingly, the Examiner's rejection of claims 1-5, 7-21, 23 and 24 as being anticipated by Cooper has been overcome and should be removed.

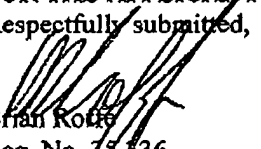
If the Examiner should determine that any changes to the claims are necessary to place the application in condition for allowance, the Examiner is respectfully requested to contact the undersigned to discuss the same.

Petition for Extension

Applicants hereby petition the Commissioner for Patents for a one-month extension to extend the time for response to the Office Action dated August 25, 2004 for one month from November 25, 2004 to December 27, 2004. The petition fee of \$120 should be charged to Deposit Account No. 50-0266.

An early and favorable action on the merits upon entry and consideration of this amendment is earnestly solicited.

FOR THE APPLICANT
Respectfully submitted,



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